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What is claimed is:

Claims
Sub 2

1. An apparatus for effecting necrosis of an uterine endometrium comprising:

an applicator comprising a catheter for insertion into the uterus, said catheter having a proximal and a distal end, and a distendable bladder attached to said proximal end;

inflating means connected to said distal end for distending said distendable bladder;

heating means for heating said distendable bladder positioned internal to said distendable bladder; and

control means for regulating the distending and heating of said distendable bladder.

2. The apparatus of claim 1, wherein said catheter is comprised of an external tubing, an internal tubing extending through said external tubing, and at least one wire extending through said distal end and connected to said heating means. ✓

3. The apparatus of claim 2, wherein said inflating means comprises a fluid and a pump means connected to said internal tubing for pumping said fluid into said distendable applicator. ✓

4. The apparatus of claim 3, wherein said heating means comprises: ✓

a power source connected to said wire;

a heating element attached to said wire at said proximal end of the catheter and surrounded by said distendable

bladder; and

heating said fluid within said distendable bladder so as to heat said distendable bladder.

5. The apparatus of claim 4, wherein said control means is external to the uterus and connected to said inner tubing and said wires. ✓

Sub a2 6. The apparatus of claim 3, wherein said pumping means comprises a hypodermic barrel connected to said inner tubing. ✓

a 5. The apparatus of claim ⁴~~8~~, wherein said hypodermic barrel is connected to said ^{flexible}~~inner~~ tubing by a three-way valve. ✓

a 11. The apparatus of claim 1, further comprising means for disengaging said ^{catheter}~~applicator~~ from said control means so that the applicator and the control means may be separated.

a 12. The apparatus of claim 1, wherein said distendable bladder is capable of resisting an internal pressure of at least 300 mmHg without rupturing and a temperature of at least 250° ^{Fahrenheit}~~Fahrenheit~~ without carbonizing.

12 13. The apparatus of claim ¹²~~8~~, wherein said distendable bladder is selected from the group comprising latex rubber.

Sub a3 11. The apparatus of claim 2, wherein said external tubing is selected from the group comprising Teflon type

~~tubing.~~

12. The apparatus of claim 2, wherein said internal tubing is selected from the group comprising Teflon type tubing.

14~~13~~: The apparatus of claim 1, wherein said control means comprises:

volume control means;
temperature control means;
pressure control means; and
time control means.

Suba 4 → 14. The apparatus of claim 13, wherein said temperature control means comprises:
a thermocouple internal to said distendable bladder for measuring the temperature of said fluid; and
a temperature display attached to said thermocouple by at least one wire;
said temperature display further providing a means for setting the temperature of said heating means.

15. The apparatus of claim 13, wherein said pressure control means comprises:
a pressure sensor connected to said applicator by said inner tubing; and
a pressure display attached to said inner tubing;
said pressure display further providing a means for setting the pressure of said inflating means.

17 ¹⁴ 16. The apparatus of claim 13, wherein said time control means comprises a clock. ✓

18 ¹⁷ 17. The apparatus of claim 16, wherein said clock is ✓ programmable and connected to said temperature control means.

a 9 ² 18. The apparatus of claim 17, further comprising a ✓ positioning means for positioning said distendable bladder in the uterus.

a 10 ⁹ 19. The apparatus of claim 18, wherein said positioning means comprises scale gradations on said catheter for indicating depth of insertion of said distendable bladder into the uterus.

6 20. The apparatus of claim 3, wherein said fluid is non-circulating.

✓ 21. A method for effecting cauterization necrosis of the tissue lining of a mammalian body cavity comprising the steps of:

(a) inserting a distendable bladder into the body cavity;

(b) inflating said distendable bladder to a predetermined pressure with a fluid so that said distendable bladder is in contact with substantially all of the tissue lining for which necrosis is desired;

(c) heating said fluid by means of a heating element positioned internal to said distendable bladder;

(d) controlling the temperature and pressure of said fluid by control means connected to said distendable bladder; and

(e) maintaining said bladder so inflated with said fluid at a temperature for a period of time sufficient to effect cauterization necrosis of substantially all of the tissue lining of the body cavity for which necrosis is desired.

22. A method as described in claim 21, wherein the exterior of said distendable bladder in contact with the tissue lining is maintained at a temperature of 190° to 215°F and preferably about 210°F for a period of time of from 4 to 12 minutes, and preferably around 6 minutes.

23. A method for effecting cauterization necrosis of an uterine endometrium comprising the steps of:

(a) inserting a distendable bladder into the uterus;
(b) inflating said distendable bladder to a predetermined pressure with a fluid so that said distendable bladder is in contact with substantially all of the endometrium;

(c) heating said fluid by means of a heating element positioned internal to said distendable bladder;

(d) regulating the temperature and pressure of said fluid by control means connected to said distendable bladder; and

(e) maintaining said bladder so inflated with said fluid at a temperature for a period of time sufficient to effect cauterization necrosis of substantially all of the uterine endometrium.

24. A method as described in claim 23, wherein the exterior of said distensible bladder in contact with the endometrium is maintained at a temperature of 190° to 215°F and preferably about 210°F for a period of time of from 4 to 12 minutes, and preferably around 6 minutes. ✓

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